UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/003,268	12/06/2001	Joseph Esfahani	01/22829	4434

7590 10/19/2005	EXAMINER

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ART UNIT	PAPER NUMBER
2131	

DATE MAILED: 10/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

Office Action Summary	Application No.	Applicant(s)
	10/003,268	ESFAHANI, JOSEPH
	Examiner	Art Unit
	Aravind K. Moorthy	2131

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 November 2004*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-31* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-31* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *06 December 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

1. Claims 1-31 are pending in the application.

2. Claims 1-31 have been rejected.

Specification

3. The title of the invention is not descriptive. A new title is required that is clearly indicative of

the invention to which the claims are directed.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-4, 6-8, 11-15, 17-19, 22-24 and 26-29 are rejected under 35 U.S.C. 102(e) as

being anticipated by Alcorn et al U.S. Patent No. 6,104,815.

As to claim 1, Alcorn et al discloses a secure identification apparatus for remote

transaction enablement, the apparatus comprising:

a user interface having a first input part for receiving user information of a

respective user, and a second input part for receiving an identification sequence

comprising an encryption of a combination of a user identifying element and a

time varying element [column 6 line 64 to column 7 line 30],

a database of identification sequencing information for a plurality of users,

the sequencing information corresponding to at least the user identifying element

[column 6, lines 41-59],

an identification processor, associated with the user interface and the

database, for determining whether the identification sequence comprises a user

identifying element corresponding to the respective user [column 6 line 64 to

column 7 line 30], and

a transaction validation unit, for using, the determination to enable a

transaction [column 6 line 64 to column 7 line 30].

As to claim 2, Alcorn et al discloses that the transaction validation unit is operable to

enable the transaction by using the identifying element to obtain an account number of a user

with a transaction service provider [column 6 line 64 to column 7 line 30].

As to claims 3, 14 and 23, Alcorn et al suggests that the identification sequence is a

sequence of up to sixteen characters [column 6 line 64 to column 7 line 30].

As to claims 4, 15 and 24, Alcorn et al suggests that the identification sequence is a

sequence of up to four characters [column 6 line 64 to column 7 line 30].

As to claim 6, Alcorn et al discloses that the sequencing information further comprises

the cryptographic function [column 6 line 64 to column 7 line 30].

As to claims 7 and 28, Alcorn et al discloses that the cryptographic function is a

reversible function and the identification processor comprises functionality for carrying out the

cryptographic function in reverse to obtain the identification code [column 6 line 64 to column 7

line 30].

As to claims 8, 19 and 29, Alcorn et al discloses that the cryptographic function comprises a one-to-one reversible function [column 6 line 64 to column 7 line 30].

As to claim 11, Alcorn et al discloses a method of secure identification for remotely enabling a transaction, the method comprising:

receiving user information input [column 6 line 64 to column 7 line 30],

receiving a user manageable identification sequence [column 6 line 64 to column 7 line 30],

using the user information input to retrieve corresponding sequencing information [column 6 line 64 to column 7 line 30],

processing the sequencing information to determine whether it corresponds with the received user-manageable identification sequence [column 6 line 64 to column 7 line 30],

assigning a positive outcome to the identification if the identification sequence is found to correspond with the retrieved sequencing information [column 6 line 64 to column 7 line 30], and

enabling the transaction if the outcome is positive [column 6 line 64 to column 7 line 30].

As to claim 12, Alcorn et al discloses the method that enabling the transaction comprises:

obtaining valid account information of a user, using the identification information [column 7, lines 8-30], and

providing to a transaction service provider the valid account information [column 7, lines 8-30].

As to claim 13, Alcorn et al discloses that the valid account information is in the format of a credit card number [column 2, lines 35-48].

As to claim 17, Alcorn et al disclose that the sequencing information comprises an identification code associated with the respective user, time changing information and a cryptographic function [column 6 line 64 to column 7 line 30].

As to claim 18, Alcorn et al disclose the processing sequence information comprises carrying out the cryptographic function in reverse to obtain the identification code [column 6 line 64 to column 7 line 30].

As to claim 22, Alcorn et al disclose a secure identification system for enabling of remote transactions, the system comprising:

a user key generator for generating an identification sequence, using a user identification code, time changing information and an encryption function [column 6 line 64 to column 7 line 30],

a user interface having a first input part for receiving user information of a respective user, and a second input part for receiving the identification sequence [column 6 line 64 to column 7 line 30],

a database comprising user information and corresponding user identification codes and cryptographic functions [column 8, lines 26-41],

an identification processor, associated with the user interface and the database, for using the cryptographic function to determine whether the identification sequence comprises a respective identification code corresponding

to the user information, thereby to carry out secure identification of the respective

user [column 6 line 64 to column 7 line 30], and

a transaction number database associated with the identification processor,

for using the identification code to obtain user account information for passing to

a transaction service provider [column 6 line 64 to column 7 line 30].

As to claim 26, Alcorn et al disclose that the sequence is a user-manageable sequence

[column 6 line 64 to column 7 line 30].

As to claim 27, Alcorn et al disclose that the user identification code comprises a time

constant element [column 6 line 64 to column 7 line 30].

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5.   Claims 5, 16 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Alcorn et al U.S. Patent No. 6,104,815 as applied to claims 1, 11 and 22 above, and further

in view of Flitcroft et al U.S. Patent No. 6,636,833 B1.

As to claim 5, Alcorn et al does not teach that the identification sequence (i.e. PIN) is a

sequence arrangeable into a credit card number format.

Flitcroft et al teaches using a credit card number format as a PIN [column 27, lines 16-

50].

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Alcorn et al so that the PIN would have been a credit card number.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Alcorn et al by the teaching of Flitcroft et al because the credit card holder obtains the functionality of a credit card without ever in fact revealing the credit card number in the course of the transaction [column 5, lines 50-61].

6. Claims 9, 20 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alcorn et al U.S. Patent No. 6,104,815 as applied to claims 1 and 22 above, and further in view of Chen et al U.S. Patent No. 5,796,833.

As to claim 9, Alcorn et al does not teach that the cryptographic function comprises a one-to-one trapdoor function.

Chen et al teaches using cryptographic functions that comprise a one-to-one trapdoor function and the benefits [column 3 line 65 to column 4 line 4].

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Alcorn et al so that the cryptographic function that was used to encrypt the PIN and the time element would have been an one-to-one trapdoor function.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Alcorn et al by the teaching of Chen et al because it provides a function that is difficult to compute the inverse without knowing a the trapdoor function [column 3 line 65 to column 4 line 4].

7. Claims 10, 21 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alcorn et al U.S. Patent No. 6,104,815 as applied to claims 1 and 22 above, and further in view of Chen et al U.S. Patent No. 5,796,833.

As to claims 10, 21 and 31, Alcorn et al teaches the identification processor being operable to insert the identification code and the time varying information into the cryptographic function to attempt to reproduce the user manageable identification sequence [column 6 line 64 to column 7 line 30].

Alcorn et al does not teach that the cryptographic function comprises an irreversible function.

Chen et al teaches using cryptographic functions that comprise an irreversible one-to-one trapdoor function and the benefits [column 3 line 65 to column 4 line 4].

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Alcorn et al so that the cryptographic function that was used to encrypt the PIN and the time element would have been an irreversible one-to-one trapdoor function.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Alcorn et al by the teaching of Chen et al because it provides a function that is difficult to compute the inverse without knowing a the trapdoor function [column 3 line 65 to column 4 line 4].
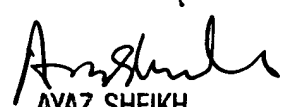
Conclusion

8.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aravind K. Moorthy whose telephone number is 571-272-3793. The examiner can normally be reached on Monday-Friday, 8:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz R. Sheikh can be reached on 571-272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Aravind K Moorthy
September 13, 2005

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